



DVI Test Generator  
User Manual

DVI-7010a



## **INTRODUCTION**

Thanks for purchasing this Test Generator from DVI Gear. The DVI-7010a provides stable test signals for a wide variety of PC and HDTV resolutions.

## **FEATURES**

- Ultra Compact, High Performance Units
- PC and HDTV Outputs
- RGBHV and YpbPr Outputs
- PC Resolutions to 1280x1024
- Most HDTV Scan Resolutions
- Selectable Refresh Rates
- Over 15 Unique Test Patterns
- Rugged Metal Case
- Locking DC Power Connector for Security
- Small, In-line Power Adapter



## GETTING THE BEST RESULTS

There are many factors affecting the quality of results when scaling video signals. Some basic precautions will ensure the best possible performance from your Video Scaler.

- Output display device - The quality of the output signal will depend largely upon the type and quality of display device used. For instance, some video projectors just look better than the others.
- Using Default Resolution - It is always best to set the output resolution of the Test Generator to the default resolution and refresh rate of the display device. If the display device automatically tracks the resolution and refresh rate of the incoming signal, initially set the Test Generator to the middle of the range of acceptable signals.
- Distance between the Test Generator and the display device - Long distances are possible, but special measures should be taken in order to avoid cable losses. These include using high quality (coax-type) VGA cables and Premium DVI Cables. Line amplifiers may also be necessary.
- Output connection cables - Low quality cables degrade signal quality. Coax-type computer cables are recommended because of their superior internal shielding characteristics.
- Interference from nearby electrical devices - These can have an adverse effect on signal quality. For example, an older computer monitor often emits very high electromagnetic fields that can interfere with the performance of video equipment in its proximity.



## SPECIFICATIONS

### Output, Mechanical, and Environmental Specifications

Output Format	RGBHV only via DVI-I
Mechanical	1"x7"x4" HWD (25x175x100mm), 1.5 lbs (680 g)
Control	Push Button Control of refresh rate, resolution, and test signal selection
Power Requirements	5VDC @ 2.0 A (External Power Adapter Supplied with Test Generator)

### Output Signal Specifications

PC Resolutions		Vert Rate	Format
VGA	640x480	50, 60, 72, 75, 85 Hz	RGBHV
SVGA	800x600	50, 60, 72, 75, 85 Hz	RGBHV
XGA	1024x768	50, 60, 70, 75, 85 Hz	RGBHV
WXGA	1280x768	50, 60 Hz	RGBHV
SXGA	1280x1024	50, 60 Hz	RGBHV

  

HDTV Resolutions		Vert Rate	Format
480p	720x480	50, 60 Hz	RGBHV
576p	720x480	50, 60 Hz	RGBHV
720p	1280x720	50, 60 Hz	RGBHV
1080i*	1920x1080	50, 60 Hz	RGBHV
Note 1			

\*The 1080i Output is actually a doubled 540p signal. It will appear as 1080i on most displays, however, it is not a true 1080i signal format.



## **CHECKING THE PACKAGE CONTENTS**

The following items are contained in the shipping carton:

- Test Generator
- 100-240VAC to 5VDC AC/DC Power Adapter
- 6-ft. DVI Cable
- User Manual

**Note** - Please retain the original packing material should the need arise to return the unit.

## **CONNECTING THE HARDWARE**

The first step is to connect a Display Input to the Output of the Test Generator and then the power.

## **CONNECTING THE OUTPUT**

The Test Generator outputs digital RGBHV format via the DVI connector.

## **CONNECTING POWER TO THE UNIT**

The Test Generator is shipped with an In-Plug Power Adapter to convert 100-240VAC@50-60Hz to 5VDC. Connect the DC Output Cord from the Power Adapter to the back of the unit and then plug the Power Adapter into an AC Receptacle. When the unit's front panel Power Switch is turned On, the Power LED indicator will illuminate.



## CONTROLLING THE TEST GENERATOR

The generator is controlled via three buttons with status indicated by OSD.

- Mode Output Button: This button changes the Refresh Rate and the Resolution of the output.
- + and - Buttons: These buttons change the test pattern being produced by the unit.
- XGA Reset: Simultaneously depressing the - and + buttons returns setting to factory defaults and sets the output to XGA.
- 480p Reset: Simultaneously depressing the Mode and - buttons returns settings to factory defaults and sets the output to 480p.

## REFRESH RATE AND RESOLUTION

Each time the Mode Output buttons is pressed, the output increments one step. The available Refresh and Resolution selections are as follows:

Available Refresh Rates and Resolutions

PC		HDTV	
SXGA	1280x1024@50/60 Hz	720p-YPbPr	1280x720@50/60 Hz
WXGA	1280x768@50/60 Hz	576p-YPbPr	720x576@50/60 Hz
XGA	1024x768@50/60/70/ 75/85 Hz	480p-YPbPr	720x480@50/60 Hz
SVGA	800x600@60/72/ 75/85 Hz	1080i- YPbPr	1920x1080@50/60 Hz
VGA	640x480@60/72/75/ 85 Hz		Pseudo Interlace - see note on pg 5



**TEST PATTERN SELECTION:  
The + and - Buttons**

Pressing the + and - buttons will increment and decrement the test pattern selection through a large range of output patterns.

**Available Test Patterns**

Color Bars	Color Bars/Multi-Burst (Note 2)
Grayscale Steps - Light > Dark	Multi-Burst (Note 2)
Grayscale Steps - Dark < Light	Checkerboard
Fade - Black to White	White Field
Cross Hatch - Standard	Yellow Field
Cross Hatch - Small	Cyan Field
Chinese Characters 1	Green Field
Chinese Characters 2	Magenta Field
Chinese Characters 3	Red Field
Alternating 1 Pivel B/W Lines	Blue Field
Alternating 2 Pivel B/W Lines	Black Field
Alternating 3 Pivel B/W Lines	H Pattern
Alternating 4 Pivel B/W Lines	E Pattern
Large Circle	Circles-Repeating

Note 2: Not a true Multi-burst: alternating B/W Vertical Lines.



## **LIMITED WARRANTY**

LIMITED WARRANTY - With the exceptions noted in the next paragraph, DVIgear, Inc. warrants the original purchaser that the equipment it manufactures or sells will be free from defects in materials and workmanship for a period of three years from the date of purchase. Should this product, in DVIgear's opinion, prove defective within this warranty period, DVIgear, at its option, will repair or replace this product without charge. Any defective parts replaced become the property of DVIgear. This warranty does not apply to those products which have been damaged due to accident, unauthorized alterations, improper repair, modifications, inadequate maintenance and care, or use in any manner for which the product was not originally intended.

If repairs are necessary under this warranty policy, the original purchaser must obtain a Return Authorization Number from DVIgear and return the product freight prepaid to a location designated by DVIgear. After repairs are complete, the product will be returned, freight prepaid.

LIMITATIONS - All products sold are "as is" and the above Limited Warranty is in lieu of all other warranties for this product, expressed or implied, and is strictly limited to three years from the date of purchase. DVIgear assumes no liability to distributors, resellers or end-users or any third parties for any loss of use, revenue or profit.

DVIgear makes no other representation of warranty as to fitness for the purpose or merchantability or otherwise in respect of any of the products sold. The liability of DVIgear with respect to any defective products will be limited to the repair or replacement of such products. In no event shall DVIgear be responsible or liable for any damage arising from the use of such defective products whether such damages be direct, indirect, consequential or otherwise, and whether such damages are incurred by the reseller, end-user or any third party.

## **REGULATORY COMPLIANCE**

This product has been tested for compliance with: FCC Class B and CE. The External AC Power Adapter supplied with this product has been tested for compliance with: UL, CSA and CE. This product is RoHS compliant.





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